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ABSTRACT

The Coping Scale for Adults (CSA) has been developed as an instrument to be used by teachers, administrators, parents, and adults in general to assist them to develop their coping resources. This paper reports on the validity and utility of this instrument. Five studies using the CSA (E. Frydenberg and R. Lewis, 1997) found significant relationships between a number of undesired outcomes (such as low self-esteem, feeling overwhelmed, and stress) and coping strategies assessed by the CSA which have been termed nonproductive. There is also a consistent pattern of findings across studies linking the more positive outcomes (and less negative ones) to strategies that have been termed the productive strategies of CSA. The findings appear to provide support for recent research which indicates that the linkage between maladaptive styles and negative outcomes are stronger than those between productive styles and productive outcomes. This has implications for the development of strategies and the identification of those that need to be used with caution. (Contains 1 figure, 1 table, and 24 references.) (Author/SLD)

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The Coping Scale for Adults: Construct validity and what the instrument tells us.

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Australia

Paper presented at the Annual Meeting of the American Educational Research Association Conference, New Orleans, April 2000

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The Coping Scale for Adults: Construct validity and what the instrument tells us.

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Abstract

The Coping Scale for adults has been developed as an instrument to be used by teachers, administrators, parents and adults in general, to to assist them to develop their coping resources. This paper reports on the validity and utility of this instrument.

Five studies using the Coping Scale for Adults (CSA) (Frydenberg & Lewis, 1997) found significant relationships between a number of undesired outcomes (such as, low self esteem, feeling overwhelmed, stress) and coping strategies assessed by the CSA which have been termed non-productive. Similarly, there is a consistent pattern of findings across studies linking more positive outcomes (and less negative ones) to what have been termed the productive strategies of the CSA. The findings appear to provide support for recent research which indicates that the linkage between maladaptive syles and negative outcomes are stronger than are those between productive styles and productive outcomes. This has implications for which strategies are developed and those which need to be used with caution.

The Coping Scale for Adults: Construct validity and what the instrument tells us.

Interest in the area of stress and coping by researchers and others has led to an explosion of relevant publications in recent times. There have been more than 16,000 references to coping in the psychology and education literature in the last decade. Nevertheless the field is fraught with theoretical imprecision which then reflects on the outcomes generated. It is readily acknowledged that research in the field needs to pay more attention to the ecological context and the issue of culture (Hobfoll, Schwarzer & Chon, 1996). Determining the validity of the ways in which coping is measured is a necessary first step. By reviewing a number of research publications, this paper examines the construct validity of a recently published Australian scale called the Coping Scale for Adults (Frydenberg & Lewis, 1997).

A number of models of stress and coping have been reported in the vast amount of literature generated in the past decade, such as Hobfoll's (1989) multiaxial model of coping and his Conservation of Resources theory (COR) which emphasises the social dimension to coping in contrast to individual coping. Another approach is the transactional model of Richard Lazarus and his colleagues (Lazarus, 1980; Lazarus & Launier, 1978), with its emphasis on appraisal and the categorisation of emotion-focused and problem-focused coping. According to the transactional model, stress is a normal component of living (Lazarus, 1980; Lazarus & Launier, 1978). It is seen as a product of an imbalance between people's perception of the demands placed upon them and their perception of the resources they have to cope with these demands. Therefore, it is the individual him or herself who determines whether an event is stressful.

The working definition of coping for the present paper is taken from Richard Lazarus and his colleagues, who define coping, "... as constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p. 141).

This definition addresses the cognitive, affective and behavioural aspects of the coping process and also focuses on the effort associated with an individual's response. Lazarus and Folkman (1984) also point out that managing stress includes accepting, tolerating, avoiding, or minimising the stressors as well as the more traditional view of mastering the

environment. Moreover, coping is not limited to successful efforts but includes all purposeful attempts to manage stress regardless of their effectiveness.

There is some confusion in the terminology that is frequently adopted with regard to coping. In this paper the following definitions will apply. First, there are *coping actions* (that is, what an individual feels, thinks or does) which are often grouped into *coping strategies* (that is, a related number of actions such as Worry). Second, these strategies can in turn be grouped into *coping styles* , that is, groups of empirically and conceptually related strategies that reflect a domain of coping, for example, Sharing.

In general, coping efforts have been dichotomised into those intended to act on the stressor (problem-focused coping) and those intended to regulate emotional states associated with, or resulting from the stressor (emotion-focused coping). The resources available to the individual coping with stress fall into the categories of those aspects of the self and those of the social environment that facilitate or make possible successful adaptation to life stress.

To date much of the coping research in the child and adolescent area has been predicated on the theorising of Folkman and Lazarus. However, as stated above, alternate theory-driven models of coping such as the multiaxial model of (Hobfoll, 1998) hold promise for work with young people. Hobfoll's model differs from that of Folkman and Lazarus on a number of counts. First, he proposes six axes which account for the prosocial and antisocial, the active and passive components of coping actions and the direct and indirect dimensions of the response. This model attempts to shift the emphasis from an individualistic to a collectivist perspective. Another aspect of Hobfoll's approach is that it emphasises the notion that individual's attempt to conserve their resources (COR theory), that is, to maintain that which they value and guard against loss when resources are threatened. Resources in this sense can be material, social or esteem related. While the model has yet to be tested with children and adolescents it appears to have validity in that it affirms that individuals wish to hold on to that which they have. This contention seems to hold true for young people as much as for adults, in that friendships, possesions and pride are valued, and therefore the loss is feared, particularly when they are under threat. A further promise of this model is its relevance for educators in that it includes a notion of values

and those principles and actions which might be included in the teaching of coping skills.

Frydenberg and Lewis (1993) also emphasise attempts to achieve a homeostatic balance between people and their environments. They have defined coping,

> ... as a set of cognitive and affective actions which arise in response to a particular concern. They represent an attempt to restore the equilibrium or to remove the turbulence for the individual. This may be done by solving the problem (that is, removing the stimulus) or accommodating to the concern without bringing about a solution (p.255).

This definition highlights that where stressors are uncontrollable or unchangeable and consequently not able to be modified or removed, such as in the case of chronic illness, individuals are likely to cope by accommodating to the situation.

As stated above, this paper reports on a series of investigations which highlight the use of the Coping Scale for Adults (ACS) (Frydenberg & Lewis, 1997). The intent of this paper is to demonstrate the construct validity of this measure by reference to the findings of studies which have used the instrument. It is also intended to demonstrate that useful data can be obtained from a particular population which can provide guidelines for intervention.

Method

The CSA has been developed in the Australian context, beginning with descriptions by young people of how they cope and using empirical procedures to determine the dimensions of coping. Studies to date have demonstrated its utility, and established how particular populations of people cope (Frydenberg & Lewis, 1997). The relationships between age, ethnicity and gender, and coping have been frequently reported (Frydenberg & Lewis, 1993). This paper examines the construct validity of the scale.

In general a test is valid in the sense that it measures what it purports to measure (Best, 1997). One way construct validity is empirically assessed is by examining the extent to which scores on a test are empirically

associated with theoretically related constructs. For example, it may be hypothesised that adults who are exhibiting more symptoms of pathology (for example, depression) will use more non-productive coping strategies and fewer productive ones. Consequently this paper reports investigations which examine the relationships between self-perceptions, achievement, dysfunctional behaviour, and patterns of coping.

In summary, therefore, the purpose of this paper is to examine the reported empirical relationships between the measures of coping provided by the CSA and theoretically related characteristics. The view adopted is a positivist one which examines correlations and other statistical indicators of association between indices of personality and various forms of dysfuncion, and coping scale scores. The findings are presented in support of the validity of the instrument and are used to demonstrate the necessity of employing fine grained measures in the assessment of coping. Finally, the studies collectively extend our understanding of the construct of coping.

Materials

Coping was measured using the CSA, which has been developed in Australia to assist individuals and organisations working with adults in clinical, counselling and human resource contexts to consider issues surrounding coping and to facilitate the development of coping strategies (Frydenberg & Lewis, 1997). The CSA was chosen because the 74 items combine to form 19 scales and thus enable the widest possible range of coping behaviours to be considered.

Each item of the CSA describes a specific response to a concern. Respondents indicate if the response described occurs a "great deal", "often", "sometimes", "very little" or "doesn't apply or don't do it", by circling the numbers 5, 4, 3, 2 or 1, respectively. Each of 18 scales reflects a conceptually and empirically distinct coping strategy. One additional scale, entitled 'Not Cope', assesses a respondent's professed inability to cope. Refer to Figure 1 for a full description of the CSA coping strategies.

Insert Figure 1 about here

Statistical properties of the CSA

Descriptive data taken from the CSA manual (Frydenberg & Lewis, 1997) for this sample are recorded in Table 1. Included in this table are the

number of items characterising each of the 19 scales (strategies), the scale means, standard deviations, Cronbach alpha coefficients of internal consistency (Alpha) and test-retest stability coefficients (r_{xx}).

Insert Table 1 about here

Inspection of these data shows that all scales have score distributions covering almost the full range of possible raw scores. Overall, both the indicators of internal consistency and stability of responses reported in Table 1 are generally high, although two test-retest reliability coefficients are moderate and one is low. These are the coefficients for the Focus on Solving the Problem, Social Action and Work Hard scales. Further consideration of these scales' data shows that the low correlations may be due to the restricted range of responses on both the test and retest occasions. For the seven-item problem focused scale, 84% of respondents scored within plus or minus one point of measurement on the two testing occasions, even though the potential range of scores for this scale is 5 to 35. Similarly for the four-item Social Action scale, 84% of respondents were within plus or minus one point of measurement, and for the four-item Work Hard scale the equivalent figure was 92%. The reliability coefficients for internal consistency are consistently high, ranging from .69 to .92.

Results

The relevant findings from the six studies using the CSA are summarised in Table 2.

Insert table 2

Personality

Self-perception and coping

Two studies investigated the association between self-perception and coping. The first, by Evert (1996) surveyed 317 physiotherapy students from all academic year levels at Melbourne University in Australia and obtained a response rate of 63% (200 students). Among those sampled 64% were female and 76% were Australian born . Evert reported correlations

between each of the 19 scales of the CSA and the Rosenberg self-esteem Scale (1989). Her results indicate that 14 out of the 19 coping strategies display statistically significant associations with self-esteem. All six of the non-productive strategies, namely Worry (r =.55), Keep to Self (r=.42), Self-blame (r=.62), Tension Reduction (r=.25), Ignore (r=.39) and Not Cope (r=.48) were negatively associated with self-esteem as was Wishful Thinking (r=.24).

In contrast, five of the seven strategies comprising the style Deal with the problem shared a positive relationship with self-esteem. These were Problem-focused(r=.39), Improve Relationships (r=.22), Physical Recreation (r=.23), Relax (r=.41), and Humour (r=.18). In addition Seeking Social Support (r=.38), and Focus on the Positive (r=.37), also correlated positively and significantly with self-esteem.

The second of the studies which investigated the association between self perception and coping focused on locus of control. Goble (1995) asssessed locus of control using the Levenson LLC (1981) which attributes the causation of events to self, powerful others or chance. In this study Goble surveyed 309 Monash University students in Melbourne, 70% were males. The predominance of males can be explained by the fact that of her 248 respondents (80% response rate), 60% were undertaking Engineering. The remainder were divided into Marketing, Business and Psychology courses.

Goble (1995) only reported data for the four coping styles provided by the CSA and not for the 18 strategies. Her findings indicate a positive and a significant correlation (r=.21) between Internal Locus of Control and Dealing with the Problem. This style comprises the strategies, Problem-focused, Work Hard, Improve Relationships, Protect Self, Physical Recreation, Relaxation and Humour. She also reports significant correlations beween the two external loci of control, namely Powerful Others and Chance, and Non-productive coping with correlations of .38 and .30 respectively. As indicated above the Non-productive style comprises the strategies Worry, Keep to Self, Self-blame, Tension Reduction, Ignore and Not-cope.

In another study, (Spanjer, 1999) which looked at locus of control and coping styles used by 77 Master of Business Administration students, it was found that external locus of control is associated with non-productive coping (r=.21).

In a sample of 105 residential students studying in a range of tertiary institutions in Melbourne, McDonald (1996) examined the association

between coping and identity achievement. The sample comprised 50% female and in total contained ages ranging from 17 to 65 years with an average of 25. These students were primarily drawn from the sciences and the humamities with 10% coming from commerce. Using the Ego Identity Scale (Tan, Kendis, Fine & Porag, 1977), McDonald reports that Identity Achievement correlates significantly ($p<.05$) and positively with Solving the Problem ($r = .32$)Working Hard ($r = .27$), engaging in Physical Recreation ($r = .28$) and Focusing on the Positive ($r = .23$). There was a significant negative relationship between Identity Achievement and a range of Non-productive coping strategies. These included, Worry ($r = -.48$), Self-blame ($r = -.47$), Tension reduction ($r = -.35$), Keep to self ($r = -.23$), Ignore the Problem ($r = -.23$), Wishful Thinking (-.27) and Not Cope ($r = -.34$).

McDonald also examined the the relationship between learning styles and coping. The Aproaches to Study Inventory (Revised) (Entwistle, 1995) was used to assess Learning Style. McDonald's results, based on hierarchical multiple regression indicates that three of the coping strategies significantly predicted learning styles. Work Hard predicted a deep approach to learning whereas a shallow approach to learning was predicted by the use of physical recreation and an avoidance of solving the problem.

The final study to be reviewed in this section focuses on the coping responses in a sample of anorexic women, aged between 14 and 31 with a mean age of 22 years (Lynham, 1966). Each of the participants had been diagnosed by their own medical practitioner as having anorexia nervosa and had undergone some medical or hospital treatment for the disorder, as well as having been involved in counselling. By comparing the coping responses of the anorexics and the sample data provided in the CSA manual Lynham established that anorexics used substantially more Protect Self, Seek Professional Help and a range of Non Productive strategies, namely Not Cope, Self-blame, Worry, Tension Reduction and Wishful Thinking.

Stress and coping

Stress research has had its origins in physics rather than psychology and physiology. Essentially stress was a term used in engineering to describe a mechanical force that placed strain or pressure on an object. The physiological theories of stress focus on the arousal that occurs when an organism is under stress or threat. On such occasions there is a response to

the stress which may be adaptive in that there is an attempt to 'fight' or 'flee' the stress. When the stress persists there is likely to be a harmful outcome for the organism (Cannon, 1939). Illness is often a result of the exertion or demand that is made on a particular physiological system. Biological or genetic predisposition may play an important part in illness. Selye (1976) described stress as 'the non-specific response of the body to any demands " (p472). Selye makes the distinction between stress which mobilises the individual to effective performance (eustress), such as when there is heightened performance in an exam, and stress which is more negative and which has been labeled "distress". As stated earlier, Lazarus (1974) describes stress as the mismatch between the perceived demands of a situation and the individual's assessment of his or her resources to deal with these demands. Stressors can be physical such as those pertaining to the environment, like extreme hot or cold temperatures, or psychosocial stresses such relationships that are not working.

Evert (1996) in her study of physiotherapy students examined the relationship between coping strategies and feeling overwhelmed by academic pressures. She measured feelings of being overwhelmed by utilizing item responses on a four point likert scale (0='not all', 1= 'a little', 2= 'much', and 3= 'very much'). There were significant relationships between feeling overwhelmed with academic stress and two strategies in the Dealing with the Problem coping style. There was a negative association between the strategy Relax (r=-.17) and a positive relationship with Worry, (r=.19). In addition six Non-productive coping strategies displayed positive associations with feelings of of being overwhelmed with academic stress, namely, Worry (r=.47), Keep to Self (r=0.28), Self-blame (r=.34), Tension Reduction (r=.15), Ignore (r=.21) and Not Cope (r=.36). There were also positive correlations between feeling overwhelmed and the Optimsm style which included positive correlations for the relationships Seeking Spiritual Support (r=.20), and Wishful Thinking (r=.29).

A second study that examined stress (Jones, 1997) administered the Academic Stress Questionnaire (Abouserie, 1994) to 170 undergraduate students at Deakin University, Melbourne. The sample contained 80% females, since the students were enrolled in the faculties of Education, Law and Behavioural Science. English was the first language for 95% of the students. Academic stress correlated positively and significantly with Non-productive Coping (r=.49). This style contained six strategies, all of which correlated significantly with stress; Self-blame (r= .42), Worry (r=.45),

Keep to self (r=.29), Tension reduction (r=.33), Not Cope (r=.39) and Ignore the Problem (r=.20). Additonally there was a positive relationship between the Sharing style and stress (r=.18) due to positive and statistically significant correlations between stress and the Wishful Thinking (r= .19) and Seeking Spiritual Support (r=.20) strategies.

Discussion and Conclusion

This report evidences the growing body of research literature supporting the validity of the CSA. It also illustrates the value of making available to researchers an instrument with face validity that is evident to practitioners. Such availability allows researchers to utilise and test the scale in a number of settings with various groups of respondents, thereby providing insights into the predictive validity of the scales.

In general the preceding studies indicate statistically significant relationships between a number of undesired outcomes (low self esteem, feeling overwhelmed, stress) and coping strategies assessed by the CSA which have been termed non-productive. Similarly, there is a consistent pattern of findings across studies linking more positive outcomes (or less negative ones) to what have been termed the productive strategies of the CSA.

Although some correlations were statistically significant, they were quite moderate. Consequently this attenuates the degree of confidence that one may place in such findings. However, it is apparent that independent studies report very similar findings, namely that 'Non-productive ' strategies and styles are associated with negative outcomes and to a lesser extent the productive strategies with more positive outcomes. The replicability of these results over a number of independent samples supports the construct validity of the CSA. Furthermore, the tendency for the negative impact of dysfunctional coping responses to outweigh the positive impact of the productive ones has been recently noted in a study of teachers' coping (Lewis, 1999). As a result of this it is timely to evaluate the usefulness of assisting people to maximise use of productive strategies and compare this with the benefit derived from minimising the use of dysfunctional strategies. Clearly we would argue that the CSA would play a useful role in facilitating research of this kind.

References

Abouserie, R. (1994). Sources and levels of stress in relation to locus of control and self esteem in university students. Educational Psychology, 14, (3). 323-330.

Best, J. W. (1997). Research in Education. New Jersey: Prentice Hall.

Cannon, W. B. (1939). The wisdom of the body (2nd edition.). New York: W. W. Simon(First editon, 1932.)

Entwistle, N. (1995). The approaches to studying inventory (Revised). Unpublished questionnaire: Edinburgh.

Evert, H. (1996). Gender, culture, psychological and social resources and their influence on coping behaviour in physiotherapy students. Unpublished Master of Educational Psychology Thesis. University of Melbourne, Melbourne

Frydenberg, E. & Lewis, R. (1993). The Adolescent Coping Scale: Administrator's Manual. Melbourne: Australian Council for Educational Research.

Frydenberg. E. & Lewis, R. (1997). Manual: Coping Scale for Adults. Melbourne: Australian Council for Educational Research.

Goble, G. (1995). Assessment of Coping Strategies. Unpublished rerearch report, Monash University.

Hobfoll, S. E., Schwarzer, S. & Chon, K. (1996). Disentangling the stress labyrinth. Interpreting the meaning of stress as it's studied. Japanese Health Psychology, 14, 1-22.

Hobfoll, S. E. (1989). Conservation of resources: A new way of conceptualising stress. American Psychologist. 44 (3). 513-524.

Hobfoll, S. E. (1998). Stress, culture and community: The psychology and philosophy of stress. New York: Plenum.

Jones, B. (1997). The transition from secondary school to university: Who needs help coping with academic stress and when. Unpublished Master of Educational Psychology Thesis. University of Melbourne, Melbourne.

Lazarus, R. s.(1974). The riddle of man. Englewood Cliffs, NJ: Prentice Hall

Lazarus, R.S. (1980). The stress and coping paradigm. In C. Eisendorfer, D. Cohen, A. Kleinman, & P. Maxim (Eds.), Theoretical basis for psychopathology, (pp. 287-322). New York: Spectrum.

Lazarus, R.S. & Folkman, S. (1984). Stress, appraisal and coping. New York: Springer.

Lazarus, R.S. & Launier, R. (1978). Stress-related transactions between person and environment. In A. Pervin & M. Lewis (Eds.), Perspectives in international psychology, (pp. 287-327). New York: Plenum.

Levenson, H. (1981). Differentiating among internatlity, powerful others, and chance. In H. M. Lefcourt (Ed.), Research with locus of control construct: Vol 1, Assessment Methods. (pp15-63). New York: Academic Press.

Lewis, (1999). Teachers coping with the stress of classroom discipline. Social Psychology of Education. 3, 1-17.

Lynham, S. (1996). Comparison between coping styles of young women with anorexia nervosa and coping styles of mothers and daughters with anorexia nervosa: An exploartory investigation. Unpublished Masters of Education Thesis. La Trobe University, Melbourne.

McDonald, A. (1996). Approaches to learning of tertiary students: The role of coping, developmentally-related variables and study stressors. Unpublished Master of Educational Psychology Thesis. University of Melbourne, Melbourne.

Rosenberg, M. (1989). Society and the adolescent self-image. Conneticut: Wesleyan University Press.

Selye, H. (1976). The stress of life. New York: McGraw Hill.

Spanjer, K. (1999). The relationship between locus of control and coping constructs as predictors of academic performance in an adult sample. Unpublished rerearch report, Monash University.

Tan C. Kendis, R., Fine, J., & Porac, J. (1977). A short mesasure of Eriksonian ego identify. Journal of Personality Assessment, *41*, 279-284.

Figure 1
Definitions of the 19 CSA coping strategies.

1. **Seek Social Support** is represented by items which indicate an inclination to share the problem with others and enlist support in its management, e.g. *Talk to other people to help me sort it out.*
2. **Focus on Solving the Problem** is a strategy which comprises reflecting on the problem , planning solutions, and tackling the problem systematically. e.g. *Work at solving the problem to the best of my ability.*
3. **Work Hard** is a scale describing commitment, ambition and industry, e.g. *Keep up with work as required.*
4. **Worry** is characterised by items which indicate a concern about the future in general terms or more specifically concern with happiness in the future, e.g. *Worry about what is happening.*
5. **Improve Relationships** is about improving one's relationship with others, engaging in a particular intimate relationship, e.g. *Spend more time with husband/wife/boy/girl friend.*
6. **Wishful Thinking** is characterised by items which are based on hope and anticipation of a positive outcome, e.g. *Hope that the problem will sort itself out.*
7. **Tension Reduction** is characterised by items which reflect an attempt to make oneself feel better by releasing tension, e.g. *Release pressure by taking alcohol or cigarettes.*
8. **Social Action** is about letting others know what is of concern and enlisting support by writing petitions or organising an activity such as a meeting or a rally, e.g. *Join with people who have the same concern.*
9. **Ignore the Problem** is characterised by items which reflect a conscious blocking out of the problem, e.g. *Put the problem out of my mind*
10. **Self-Blame** indicates that individuals are critical of themselves for being responsible for the concern or worry, e.g. *Blame myself.*
11. **Keep to Self** is characterised by items which reflect the individual's withdrawal from others and a desire to keep others from knowing about concerns, e.g. *Keep my feelings to myself.*
12. **Seek Spiritual Support** is characterised by items which reflect prayer and belief in the assistance of a spiritual leader or God, e.g. *Pray for help and guidance so that everything will be all right.*

13. **Focus on the Positive** is represented by items which indicate a positive and cheerful outlook on the current situation. This includes seeing the 'bright side of circumstances and seeing oneself as fortunate, e.g. *Look on the bright side of things and think of all that is good.*
14. **Seek Professional Help** denotes the use of a professional adviser, such as a teacher or counsellor, e.g. *Discuss the problem with qualified people.*
15. **Seek Relaxing Diversions** is about general relaxation. It is characterised by items which describe leisure activities such as reading and listening to music, e.g. *Find a way to relax, for example, listening to music, read a book, play a musical instrument, watch television.*
16. **Physical Recreation** is characterised by items which relate to playing sport and keeping fit, e.g. *Keep fit and healthy.*
17. **Protect Self** comprises items which indicate attempts to support one's self concept by constructive self-talk and looking after one's appearance, e.g. *Work on my self image.*
18. **Humour** is about being funny as a diversion, e.g. *create a humorous diversion.*
19. **Not Cope** which is characterised by items reflecting an inability to cope and the occurrence of psychosomatic illness, e.g. I *get sick*

Table 1
General Adult Coping scale statistics including mean, standard deviation, alpha coefficients and test retest correlation coefficients

Coping Strategies	No. of Items	M	SD	Average item mean	Alpha	r xx (n=25)
Seek Social Support	4	12.65	3.12	3.16	0.79	0.90
Solving the Problem	7	25.59	4.61	3.66	0.83	0.56
Physical Recreation	3	8.24	3.19	2.75	0.78	0.97
Seek Spiritual Support	3	5.49	3.26	1.83	0.92	0.94
Seek Professional Help	4	7.95	4.18	1.99	0.92	0.84
Worry	4	11.26	3.84	2.80	0.85	0.91
Relaxing Diversions	4	14.45	3.19	3.60	0.76	0.95
Social Action	4	7.23	2.93	1.80	0.74	0.56
Work Hard	3	12.01	2.43	4.00	0.78	0.23
Focus on the Positive	4	12.75	3.17	3.18	0.74	0.92
Wishful Thinking	4	10.07	3.61	2.52	0.75	0.76
Ignore the Problem	3	6.51	2.44	2.17	0.80	0.75
Tension Reduction	4	8.69	3.30	2.17	0.69	0.87
Keep to self	4	11.43	3.52	2.86	0.82	0.78
Self-blame	4	11.36	3.62	2.84	0.88	0.83
Protect Self	4	12.14	3.09	3.03	0.71	0.91
Improve Relationships	4	12.07	3.52	3.02	0.77	0.78
Humour	3	7.87	2.94	2.62	0.87	0.90
Not Coping	3	6.71	2.66	2.24	0.70	0.94

Table 2. Summary of validity studies using the CSA

Study	Test	N	Group	Key Findings
Goble, (1995)	CSA Locus of Control	248	**Tertiary students**	• Higher internal Locus of Control more usage of Productive coping style • Higher External Locus of Control more usage of Non-Productive coping style
Evert, H (1996)	CSA Self-esteem Stress	200	**Tertiary students**	• High self-esteem more Social Support,Problem Focus, Improving Relationships, Physical Recreation, Humour, Relaxation and Focus on the Positive and less Worry, Keep to Self, Self Blame, Tension Reduction, Ignoring the Problem, Not Cope and Wishful Thinking • Feeling Overwhelmed more, Seeking Spiritual Support, Wishful Thinking, Worry, Keep to Self, Ignoring Problem, Not Cope, Self Blame and Tension Reduction and less Seeking Relaxing Diversions
Jones, B. (1997)	CSA Academic Stress	170	**Psychology 1 students**	• Academic stress and self blame, Worry, Keep to Self, Tension Reduction, Not Cope and Ignoring Problem, Wishful Thinking, and Seeking Spiritual Support
Lyneham, S. (1997)	CSA	14	**Anorexic girls and mothers**	• Anorexics more Not Cope, Self Blame, Protect Self, Worry, Seeking Professional Help, Tension Reduction and Wishful Thinking
McDonald, A. (1996)	CSA Learning Approach	105	**Tertiary students**	• Deep learning approaches more Work Hard • Surface learning approaches less Focus on Solving the Problem ,and more Physical Recreation • Identity Achievement and more Solving the Problem, Working Hard, engaging in Physical Recreation and Focus on the Positive. • Identity Achievement and less Worry, Self Blame, Tension Reduction, Keep to Self, Ignore the Problem, Wishful Thinking and Not Cope
Spanjer, K. (1999)	CSA	77	**Master of Business Administration students**	• External Locus of Control associated with Non-Productive Coping